Operational Acquisition — An Oxymoron?

Combatant Commanders' Acquisition Requirements, Conceived on the Battlefield, *Can* Be Met

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Many believe that our current acquisition system does not serve the needs of the operational commander, the rationale being that the extensive time typically required to produce and field new weapons systems precludes relying on acquisition to meet urgent wartime requirements. Our prior conflicts, however, have had several cases of new or modified weapon systems being introduced on the battlefield in an expedited manner.

The question then becomes, "What changes must be made to the present system to make it responsive to the operational commander?" Also, "What role should the operational commander play within the acquisition system in determining the requirements and deciding what programs are resourced?"

Historical Precedents — New Technology on the Battlefield

From World War II, Vietnam, and Desert Storm, you can find examples of acquisition efforts conceived on the battlefield whose delivery had a direct bearing upon the outcome of the conflict. The acquisition programs discussed in this article range in complexity from developmental to modification to Commercial Off the Shelf (COTS). What is noteworthy about these acquisitions is that none of them took more than four months to field.

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THE "CREEPING DEATH" — NORTH AMERICAN P-51D MUSTANG WORLD WAR II FIGHTER IN FLIGHT.

WORLD WAR II — THE P-51 MUSTANG

In 1939, the cornerstone of our Air Warfare Power Doctrine (AWPD), formulated at the U.S. Air Corps Tactical School, was the theory of strategic bombardment, which held that a well-planned and well-conducted bombardment attack, once launched, could not be stopped. So, when the United States entered the war against Germany, the AWPD-1 held that escort fighters were not necessary in conducting strategic bombardment, and that U.S. Army Air Force bombers, relying on speed, high altitude, rigid formations and interlocking defensive fire, could penetrate German airspace.

The folly of this approach soon became apparent in 1943 when U.S. bombers attacking the Reich proper, sustained heavy losses between August and October. During what was termed "Black Week," the Eighth Air Force lost one of every four aircrewmen in England, which resulted in daylight raids being suspended until 1944.

The Mustang was originally conceived in April 1940 when the British placed an order for P-40s with North American Aviation. The company recommended a new design incorporating a revolutionary low-drag airframe and the P-40's Allison engine. North American was given the daunting task of providing a prototype aircraft in 120 days, which it met with three days to spare.

The original P-51A Mustang, although it had twice the legs of a Hurricane or Spitfire, was limited to an operating radius of 300 miles. Further, the poor high-altitude performance of its Allison engine limited the Mustang to close air support, reconnaissance and dive-bombing missions. The aircraft was subsequently redesigned based on suggestions from the field to overcome these limitations.

In June 1942, an English test pilot suggested that a more powerful engine would improve the Mustang's high-altitude performance (that is, above 25,000 feet). The operational commander re-

DoD Photos unless noted

THE F-105 WAS AMONG THE FIRST SUPERSONIC FIGHTER-BOMBERS AND WAS THE LARGEST SINGLE-SEAT COMBAT AIRCRAFT IN HISTORY. USED EXTENSIVELY DURING THE VIETNAM CONFLICT, THE F-105 FLEW DEEP PENETRATIONS INTO NORTH VIETNAM.

quested that external tanks be added to improve its flight range. By June 1943 production had begun on the P-51B, adding external tanks and replacing the Allison engine with a Rolls-Royce Merlin 61, which had a two-speed, two-stage supercharger. The Eighth Air Force now had a fighter that was capable of escorting the bomber raids. Thereafter, strategic bombing, enabled and protected by escort fighters, led to the collapse of the German economy.

VIETNAM — THE WILD WEASEL

In the mid-1960s, U.S. intelligence officials were aware that Soviet SA-2 surface-to-air missile (SAM) systems had been deployed to Vietnam. However, crews were not allowed to attack the sites because of the fear that the Soviet Union would be provoked if Soviet technicians were killed, and because it was believed that the Communists would use the missiles only in the case of extreme provocation, such as an invasion of the North.

The belief that the missiles would not be used under the existing rules of engagement was shattered with the July 24, 1964, attack upon Leopard and Panther flight crews in which one F-4C was shot down and three were damaged by SA-2s.

In the following four months, eight more aircraft were lost and many others were damaged while attacking eight SAM sites. Even if the fighters were not directly damaged or destroyed by the SAMs, they were forced to fly lower, which brought them into range of antiaircraft artillery fire.

Clearly, the Air Force could not continue to trade an aircraft for a SAM site. The program developed to negate the SAM threat, dubbed the Wild Weasel, covered two types of acquisition: COTS and modification. Initially a team headed by Air Force Brig. Gen. Dempster recommended installing F-100Fs with COTS equipment that enabled the crew to identify the threat, determine the direction of the threat, and receive warning of a missile launch.

In December 1965, only four months after the mission need had been identified, the Wild Weasel I system was operational. In its initial test period, the system proved to be very successful, destroying nine SAM sites and freeing strike packages from the SAM threat by forcing the SA-2s off the air.

FUEL PROBE FROM A KC-135 STRATOTANKER APPROACHES AN F-16CJ WILD WEASEL FIGHTER 35,000 FEET OVER THE PACIFIC OCEAN.

Despite the program success, areas for improvement were identified. While it was expedient to install the equipment into an F-100F, this airframe did not have the speed of other aircraft in the strike package. To fly as a group, the strike aircraft had to slow down to the F-100F Wild Weasel's maximum speed, which put them at greater risk. Decreased speed means that you are a target longer, you cannot evade as easily and you take longer to "get out of Dodge." In air combat, speed is life.

The program was then modified to specifically meet the SA-2 threat.

The result was the Wild Weasel III, an F-105 with updated original equipment and an AZ-EL system to provide both bearing and elevation information on the target. These changes resulted in an improved Weasel. The greater speed provided by the F-105 airframe enabled the Wild Weasel to keep up with the other aircraft in the strike package. The Weasel also now had the avionics to more precisely locate the SAM site. The Wild Weasel's effectiveness is attested to by its destruction of 89 SAM sites and its suppression of hundreds of sites, which allowed U.S. strike forces to proceed to the targets.

Desert Storm — The GBU-28 Bunker Buster

During Desert Shield, the premier hard-target munition in the Air Force inventory was the BLU-109, which carried a 2,000-lb. warhead. This weapon did not have the penetrating capability to destroy Iraqi command and control bunkers. Therefore, Central Command requested development of a weapon that could target these vital command and control facilities.

As a result, the Secretary of the Air Force initiated work on a new munition in January 1991. The resulting 4,700-lb. munition, dubbed the GBU-28, was capable of penetrating 100 feet or more of earth or 20 feet of concrete.

The GBU-28 development program is an excellent example of how the program manager can contribute to the combatant commander's efforts. These laser-guided bombs were built and fielded in 17 days. More importantly to the operational commander, the time from his initial request until the delivery of the munitions to his storage facility took only six weeks. Nor did this expedited effort incur exorbitant costs. The program office was able to procure 30 weapons for less than $10 million. This cost compares very favorably with the standard cost of $1 million for a precision-guided munition. Most significantly, these weapons gave the operational commander the capability that he previously did not have to destroy Iraqi hardened leadership bunkers.

GBU-28 Paveway III, air launched cruciform-wing glide bomb with laser guidance, mounted on F15E#188, assigned to the 46th Test Wing, Eglin AFB, Fla.

Streamlining the Process — The Rapid Response Process

Prior to the onset of the Persian Gulf conflict, senior-level officials recognized that the checks and balances necessary to the everyday acquisition process did not allow the process to respond with alacrity to the time-critical needs of the battlefield. Navy Adm. David Jeremiah, [then] Vice Chairman, Joint Chiefs of Staff, described the acquisition system as a "product of the Cold War ... designed to give us large numbers of advanced systems." He observed that the system had become "risk averse" over time and "loaded down with checks and audits," resulting in the loss of "technological agility."

To give the operational commander a means to meet urgent wartime requirements, DoD implemented the Rapid Response Process (RRP), which was designed to streamline the acquisition process by reducing the layers of bureaucracy, thereby delivering a capability more rapidly. The RRP objective was to submit, assess, approve, and fund a validated Combat Mission Need Statement (C-MNS) within 24 days and implement procedures to field the desired capability in less than six months. Issuing the Program Management Directive (PMD) for the acquisition organization to meet the requirements of the C-MNS was to take one week or less. This response time was in dramatic contrast to the period that issuing a PMD took during peacetime, typically one year or more.

In a Sept. 29, 1990, message to all U.S. Air Force major commands, the Air Force vice commander stated that RRP would be used for Desert Shield requirements. His directive altered the phases of the acquisition process as follows:

- The operating command (Central Air Force) issues a Combat Mission Need Statement (C-MNS) describing the operational deficiency.
- An ad hoc Special Action Team (SAT) is formed and prepares a feasibility assessment within four days of receipt of the C-MNS.
- Within 5 days after completing the feasibility assessment, the SAT briefs the Desert Shield General Officer Steering Committee, which then recommends the program to the Air Force vice-commander for approval as an RRP program.
- If approved, a PMD is issued the next day (to the Air Force Materiel Command).

The RRP proved to be a resounding success during Desert Shield. RRP projects supported a wide variety of mission areas, including search and rescue, munitions, navigation, C3I, mission planning, NBC defense, electronic combat, explosive ordnance disposal, weather forecasting, aeromedical evaluation, and

improvements to night-fighting capabilities. Of 30 approved projects, 23 were fielded within five months, well within a time frame to support combat operations, at a dollar cost of just under $100 million.

Limits of the Rapid Response Process

The RRP was a good first step toward bringing the combatant commanders into the acquisition process. However, the RRP is based on the exigencies of conflict. Currently, equipping the forces is the mission of the Service chiefs. The role of the warfighting commanders-in-chief (CINC) in determining force acquisition needs is peripheral; they merely provide review and comment. The impact of this on acquisition can best be summed up by the aphorism, "Where you stand depends on where you sit."

For example, the Air Force has the lead for the C-17 that is critical to strategic lift capability, yet the Army is the Service that is most dependent on this lift. When it comes to a question of choosing between the F-22 and the C-17, the Air Force, without malice aforethought, most likely will favor the system geared to its primary mission — air superiority.

This is also true of the Navy, which has the acquisition responsibility for amphibious ships that are the lifeline of the Marines. In choosing between carriers and amphibious shipping, the Navy likely will favor carriers because they are geared to power projection, which is central to the Navy's mission. The CINCs' positions on acquisition, however, differ according to their warfighting missions. Consequently, they are more focused on joint needs than the Service chiefs.

This discussion is not intended to malign the Service chiefs. Rather, it is intended to point out what should be readily apparent: Whenever individuals with different missions are tasked with identifying acquisition needs, they will likely view the same situation from differing perspectives and reach different conclusions.

LOCKHEED F-22 ADVANCED TACTICAL FIGHTER.

Photo courtesy Lockheed Martin

Shifting Control to the Combatant Commanders

Every one of the United States military's conflicts, particularly those in recent years, has demonstrated the need to clarify the chain of command, to strengthen cohesion, and to put authority in the CINCs' hands. During Vietnam, the Services ran five autonomous air wars. The 1980 Desert One fiasco, in which the Army, Air Force, Navy, and Marines each insisted on a piece of the action, prompted Representative Bill Nichols to launch reform. Senator Barry Goldwater, a retired Air Force Reserve General, added his influence to support the bill.

While the Goldwater-Nichols legislation was being debated in Congress, Operation El Dorado Canyon once again highlighted the need for change. The unified commander, Army Gen. Bernard Rodgers, disgruntled with the concurrent and sometimes conflicting operations, snapped, "If you are going to make me responsible, you have got to give me the authority and you have got to let me run the show without other people short-circuiting me and telling my troops how to do it." His complaints were not

AIR FORCE C-17 GLOBEMASTER III FROM THE 17TH AIRLIFT SQUADRON, CHARLESTON AFB, S.C., TAXIS OUT TO THE RUNWAY AT POPE AFB, N.C.

enough to sway enough lawmakers to favor the Goldwater-Nichols reform.

Substantial opposition to extending control of military operations to a single combatant commander was not overcome until Grenada provided the proverbial straw that broke the camel's back. During this conflict, as a result of the coordinates on Marine Corps maps not matching those on Army maps, a Marine air strike hit a U.S. Army command post. This incident demonstrated that inter-Service chaos was so incontrovertible that even the most stalwart Service supporters could no longer delay a change in the process.

By fall 1986, about five years after the first congressional hearings on reform, control of military operations was shifted from the Services to a single, independent field commander. The aim of the Goldwater-Nichols Act was to ensure that the combatant commanders were free to build their forces however they thought best for any particular task requirement. The result of the legislation was that during the Gulf War, the Service chiefs essentially were banished from the prosecution of a major war for the first time.

Changes in the Acquisition Process

The Goldwater-Nichols legislation also recognized the need to give the warfighters more of a say in the acquisition of the weapon systems with which they would fight. The legislation provided for the Joint Chiefs of Staff (JCS), acting on behalf of the combatant commanders, to influence procurement through the Joint Requirements Oversight Council (JROC), the Chairman's Program Assessment (CPA), and the Integrated Program Priority List (IPPL).

JROC

The JROC assists the Chairman of the JCS (CJCS) in making decisions and recommendations about which weapon systems and other military equipment need to be developed, bought, modified, or canceled in order to meet the potential combat requirements of the CINCs.

C-5 Starlifter taxis out to the runway for takeoff from Robins AFB, Ga. On board the C-5 are airmen, soldiers, and civilian contractors from Northrop Grumman Co., all of whom work for the Joint Surveillance Target Attack Radar System (Joint STARS).

CPA

The CPA provides the CJCS with a vehicle to influence the Services' Program Objective Memoranda. Through the CPA, the CJCS communicates to the Secretary of Defense where the Services are not meeting the requirements of the CINCs.

IPPL

The IPPL provides a means by which the CINCs communicate their priorities related to acquisition programs currently in the Planning, Programming, and Budgeting System (PPBS). Each of these steps has paid dividends; however, experience has shown that the process needs to be further defined for the CINCs to be active participants in, rather than observers of, the process.

One example, the Joint Surveillance Target Attack Radar System (Joint STARS) program, highlights how the current process falls short. Joint STARS is credited with allowing the Army to target the Iraqi ground forces before their military might could be brought to bear during the Persian Gulf conflict. On one occasion, 80 percent of a unit forming to attack allied VII Corps troops was disabled before it could get into action.

The effect for Air Force units was just as telling. The Airborne Warning and Control System with an upside-down radar allowed close air support and airborne intelligence units to attack forces when they could do the most damage. In another incident, two A-10s and an AC-130 directed by Joint STARS destroyed 58 of 61 vehicles in a single convoy.

At the time of its development, Joint STARS had a number of detractors who said that the capability it provided was not needed and that the program cost too much. In order to garner support, the program manager decided to market his weapon system directly to the operational community. When Army Gen. Norman Schwartzkopf became aware of the system's capabilities during a demonstration conducted in Europe, he personally requested that Joint STARS be deployed to the desert.

Had the program manager not promoted the system, the Joint STARS program may have been canceled. Thus, the trip was beneficial; however, program office personnel used up time and resources that could have been put to better use in developing and fielding the system.

How did the revised acquisition process fail in this case? The PMD for Joint STARS accurately identified the system capability: a long-range airborne sensor system for standoff wide-area surveillance that could locate moving and stationary ground targets, rotating antennas, helicopters, and slow-moving fixed wing aircraft in support of battle management. Joint STARS was to provide target up-

dates to aircraft and standoff missiles designated against these targets.

The next steps in the acquisition process—JROC, CPA, and IPPL, which, ironically, were additions to the acquisition process aimed at giving the CINCs a more integral role—did not address the CINCs' priority for the capability afforded by Joint STARs. The JROC merely validated that the system could be used jointly. The CPA did not address the issue of priority because CINCs were not clamoring for a system that had yet to demonstrate its potential on the battlefield. Likewise, the IPPL tended to focus on known shortfalls, such as airlift, logistics, and communications.

Special Operations Command

A good example of the logic of giving designated commanders the ability to influence the equipping of their forces is the Special Operations Command (SOCOM), which was established in November 1986 by Public law 99-661. SOCOM is a unified combatant command responsible for developing the strategies, doctrine, tactics, and equipment requirements related to special operations forces.

The need for the command was highlighted by several special operations missions in the 1980s that culminated with the failed rescue attempt of the Iranian hostages in April 1980. The Holloway Commission report on Desert One cited several inadequacies that all stemmed from the lack of an integrated perspective with respect to special operations.

When Public Law 99-661 was passed, it created a major force program category for special operations forces and required the command to budget for the development and acquisition of special operations-peculiar equipment. In September 1988, Public Law 100-456 was enacted to clarify that SOCOM was to have sole responsibility for preparing and submitting the Program Ojectives Memorandum for all special operations forces. Before the enactment of these laws, special operations forces had inherent problems: Each Service focused on its own forces and capabilities to support these forces, giving limited attention to the contribution of other Services or to interoperability requirements.

Giving SOCOM acquisition authority has worked! It now acquires systems tailored to its mission and its forces.

Proposed Process for Combatant Commanders

Five unified combatant theater commanders in the Atlantic, Pacific, Southern, Central, and European geographic areas are confronted with the same problems that used to face SOCOM. The solution is not to create a separate major force program for each unified command but to give the operational commanders, that is, the CINCs, a more direct influence on how their forces are equipped. The same logic and wartime tragedies that pointed to the need to give CINCs authority over their forces points to the need to make them direct actors in deciding upon the equipment to be used on the battlefield.

Combatant commanders must be intimately familiar with, and have an influence upon, those weapon systems being developed and those being considered for development. In this way, doctrine and strategy will not be a slave to the available technology. Rather, doctrine and strategy will be pushed forward by advancements in technology, while technology will be pulled to support new concepts in doctrine and strategy.

The proposed process for combatant commanders will require a number of recommended changes, including the following:

- *Place an acquisition professional on the combatant commander's staff.* This will provide the CINC with the expertise to perform a number of functions: develop an MNS for an operational deficiency, scrutinize applicable programs to ensure they will meet the particular requirements of the area of operations, and act as the action officer for identifying future technologies needed on the battlefield.
- *Give the CINC authority to input an MNS directly.* The RRP recognized the need to do this during a conflict. Making this a peacetime practice would remove the major command filter in communications between the warfighter and the acquisition community.
- *Mandate that after-action reports for exercises and conflicts include appropriate mission area analyses.* The need for updates, modification, and new systems is most evident to the warfighters when they reflect on what could have been better, what they needed, and what they wished they had had during battle.
- *Allow the combatant commands to advise on the Critical Technologies Plan,* which sets the battlefield of tomorrow vision.
- *Allow the CINC's staff to prepare or to coordinate on the Cost and Operational Effectiveness Analysis, Operational Requirements Document, and Requirements Correlation Matrix.* Such a change would brings those who are currently "in the arena" to the table.
- *Time test schedules to coincide with exercises.* The Joint STARS development schedule was advanced by years based on operational experience. Exercises would approximate this effect.
- *Use JWCA as the foundation for MNSs.* This is the JROC process to identify shortfalls in capabilities. The JCS would then identify requirements that the Services would act upon.

History is replete with examples where technology has changed the face of war. Indeed, the United States has long been reliant on the use of technology as a force multiplier. When it comes to fighting, the unified commanders run the show. We must ensure that they are not denied the ability to employ superior weaponry. These recommendations would make the unified combatant commanders an integral part of the acquisition process, giving them a direct role in deciding what weapon systems they will have available on the battlefield.

Editor's Note: The author has prepared a 25-item bibliography to accompany this article. Contact him at **ltcoljesmith@hotmail.com** to obtain a copy.